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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,096	03/31/2006	Yasutsugu Muranishi	03865857498US	9785

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CROWELL & MORING LLP
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EXAMINER

SCRUGGS, ROBERT J

ART UNIT	PAPER NUMBER
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3723

MAIL DATE	DELIVERY MODE
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07/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/574,096	Applicant(s) MURANISHI ET AL.	
	Examiner ROBERT SCRUGGS	Art Unit 3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) none is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 23, 2008 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saitoh et al. (6881133) or Saitoh (6932685) in view of Katsumi (cited by applicant) and further in view of Kimura et al. (2001/0029150). Saitoh et al. and Saitoh clearly discloses the structural elements as claimed by the applicant, which includes a vertical duplex-head surface comprising, a work holding portion (10) including a first reference plane (31) coaxial with a self-rotating shaft (O2) and a second reference plane (32) perpendicular to the self-rotating shaft, the apparatus further includes upper and lower grindstones (2 and 3) and a clamping device (12) having a steel ball (23), but lacks, a method for dressing the above mentioned grindstones with a dressing tool having

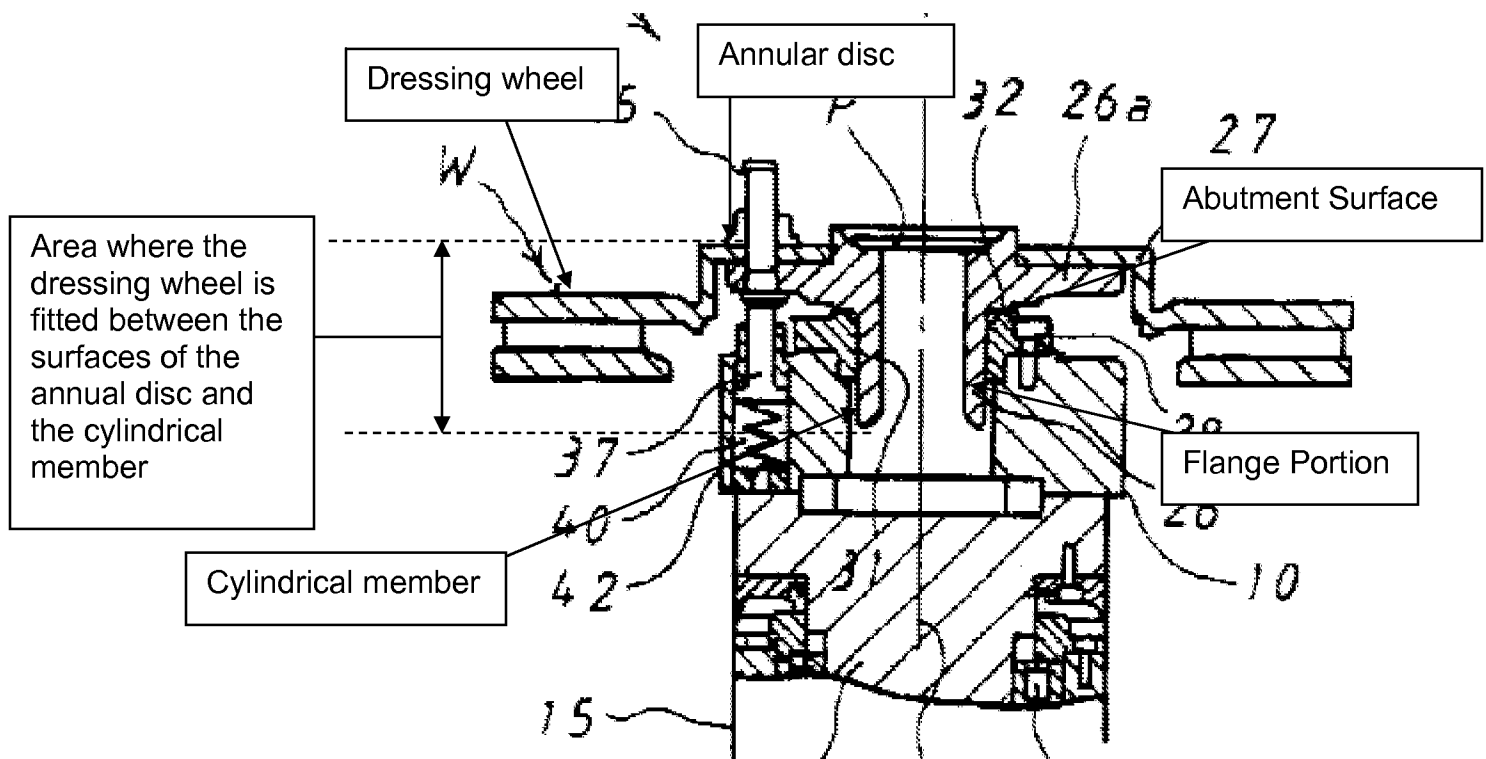
dressing wheel with parallel upper and lower grinding surfaces, a cylindrical member held on the work holding part with a flange portion arranged to concentrically receive the dressing wheel, and an annular retaining disc arranged to cooperate with the cylindrical member to fix the dressing wheel between the cylindrical member and the retaining disc, the cylindrical member being provided with a fitting portion having an outer diameter corresponding to an inner diameter of the circumferential surface of the first reference plane so as to fit in the first reference plane when the dressing tool is located on the work holding part, and an abutment surface perpendicular to the outer surface of the fitting portion to abut against the second reference plane and wherein the dressing tool is rotated during the dressing operation. However, Katsumi teaches of a method for dressing two vertically opposing grindstones with a dressing tool that can be formed with the same configuration as the work (see below), meaning that the shape of the dresser can be the same as the work and also teaches that the dressing tool can be held by the work holder (work carriage) therefore the work holding portion (10) of Saitoh could be used for holding the dressing tool. Furthermore, the work holding portion (10) of Saitoh is disclosed as being used for rotating the work (see, '685, Column 4, Lines 22-29) therefore obviously when the dressing tool is positioned in the work holding portion it too could be rotated during the dressing operation.

(57)Abstract:

PURPOSE: To make it possible to easily and quickly dress a grinding wheel by using a dresser which has faces corresponding to the faces to be ground of a work itself or a dresser body exactly following the configuration of the work, and on the faces of which supergrits are electro-deposited.

CONSTITUTION: A dresser 10 is made by applying supergrits 11 to the faces 2A to be ground of a work or a connecting rod 2 by electro-deposition. When a pair of disc grinders 3 for grinding both faces of the connecting rod 2 are loaded, the dresser 10 is fixed by a work carrier mechanism in the same manner as the connecting rod 2 is ground, and passed through between a pair of rotating disc grinders 3 under the same condition as the usual connecting rod 2 is ground. Thus, each grit-layer 11 of the dresser 10 grinds the grit-layers of each disc grinders to eliminate the loading, and the grindability of the disc grinders 3 is recovered.

The work used in Saitoh et al. and Saitoh is a brake disc plate (W) having the same shape as the dressing tool being claimed by the applicant and since Katsumi teaches that a dressing tool can be formed with the same shape as the work, the brake disc plate, of Saitoh et al. or Saitoh, could be formed into a dressing tool having a dressing wheel (see figure below) with parallel upper and lower grinding surfaces, a cylindrical member with a flange portion arranged to concentrically receive the dressing wheel, and an annular retaining disc arranged to cooperate with the cylindrical member to fix the dressing wheel between the cylindrical member and the retaining disc, the cylindrical member being provided with a fitting portion having an outer diameter corresponding to an inner diameter of the circumferential surface of the first reference plane so as to fit in the first reference plane, and an abutment surface perpendicular to the outer surface of the fitting portion to abut against the second reference plane.



Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the vertical duplex-head surface, of Saitoh et al. or Saitoh, with a method of dressing grindstones with a dressing tool having a dressing wheel with parallel upper and lower grinding surfaces, a cylindrical member with a flange portion arranged to concentrically receive the dressing wheel, and an annular retaining disc arranged to cooperate with the cylindrical member to fix the dressing wheel between the cylindrical member and the retaining disc, the cylindrical member being provided with a fitting portion having an outer diameter corresponding to an inner diameter of the circumferential surface of the first reference plane so as to fit in the first reference plane, and an abutment surface perpendicular to the outer surface of the

fitting portion to abut against the second reference plane, as taught by Katsumi, in order quickly and easily dress grinding wheels thereby improving the finished work surface.

Assuming *arguendo*, that the teaching of rotating the dressing tool is not provided than Kimura et al. may be used for the teaching of a technique for rotating a dressing tool during dressing of a grindstone (Paragraphs 64 and 88). One of ordinary skill in the art could have applied the known technique of rotating a dressing tool during a dressing operation, as taught by Kimura et al., in the same way to the device of, Saitoh et al. or Saitoh, and the results would have been predictable. In this situation, one could effectively dress the grindstone with high efficiency and at a low pressure.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT SCRUGGS whose telephone number is (571)272-8682. The examiner can normally be reached on Monday-Friday 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3723

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RS

/Joseph J. Hail, III/
Supervisory Patent Examiner, Art Unit 3723